RF Exposure

The Equipment Under Test (EUT) is an Earbuds True Wireless In Ear with Qi Charging with Bluetooth 5.0 (BR/EDR Mode) function operating in 2402-2480MHz. The EUT is powered by DC3.7V rechargeable battery or DC 5V through charging Box. The two earbuds have the same hardware. The Bluetooth function does not work when the Earbuds is charging. The Key For more detailed features description, please refer to the user's manual.

Bluetooth Version: 5.0 BR/EDR
Modulation Type: GFSK, π/4-DQPSK and 8-DPSK
Antenna Type: Integral antenna.
Antenna Gain: 2.5dBi.
The nominal conducted output power specified: -12.5dBm (+/-3dB).
The nominal radiated output power (e.i.r.p) specified: -10dBm (+/- 3dB).

According to the KDB 447498:

The maximun peak radiated emission for the EUT is 85.4dBμV/m at 3m in the frequency 2480MHz
The EIRP = [(FS*D) ^2 / 30] mW = -9.83dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 83.4dBμV/m at 3m in the frequency 2402MHz
The EIRP = [(FS*D) ^2 / 30] mW = -11.83dBm
which is within the production variation.

The maximun conducted output power specified is -9.5dBm = 0.1122 mW
The source- based time-averaging conducted output power
= 0.1122 * Duty factor mW (where Duty Factor≤1)
= 0.1122 mW

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.480) mW
= 9.53 mW

Since the source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.